To: McComb, Martin[McComb.Martin@epa.gov]

Cc: Jan Christner (Jan.Christner@WestonSolutions.com)[Jan.Christner@WestonSolutions.com];

Petri, Elliott[Elliott.Petri@WestonSolutions.com]

From: Way, Steven

Sent: Thur 8/13/2015 7:05:53 PM

Subject: FW: USGS - Flow data Discharge values for Gold King Mine, 8/12/2015

Marty and etal,

I requested USGS to gather flow measurements as a QA check on the START measures. Here are the results. We will attempt to install a flume, but it was not fully sealed yesterday so we pulled it.

Steven Way

Federal On-Scene Coordinator

Emergency Response Unit

US EPA - Region 8

1595 Wynkoop Street

Denver, CO 80202

Office: 303-312-6723

From: Henneberg, Mark [mailto:mfhenneb@usgs.gov]

Sent: Thursday, August 13, 2015 12:59 PM

To: Way, Steven

Cc: Kenneth Leib; Robert Runkel

Subject: Discharge values for Gold King Mine, 8/12/2015

Greetings Steve,

Here are provisional numbers obtained yesterday.

Flowtracker measurement 8/12/2015 17:00 1.3655 ft3/s 610GPM
Flume measurement 8/12/2015 1800 6" Parshall flume, 0.71 Ft head, 1.20 ft3/s, 538 GPM
Flume measurement does not include estimated 10% leakage around the flume, resulting cumulative flow 591 GPM
Please feel free to call or email any questions.
Regards,
Mark
Mark Henneberg
Hydrologist
U.S. Geological Survey
Colorado Water Science Center
Western Colorado Office
(970) 628-7149